TEJUS
CONSULTANTS

No. TC / BBMP / RI / YLK-PMC / 335 / 18 – 19

Date: 15.07.19

To
The Executive Engineer (Project Division)
Yelahanka Zone,
Bruhat Bangalore Mahanagara Palike,
Bangalore.

Dear Sir

Sub: **First and Part bill for the work of Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara**

In reference to the above subject, this is to bring to your kind notice that we have scrutinized the **First and Part** bill submitted by **Sri. N Lokanath Reddy**, towards the above said work and arrived at an amount of **Rs. 4408652.19/-(Rupees Forty Four Lakh Ten Thousand Six Hundred Fifty Two and Paise Nineteen Only)**. The work has been completed satisfactorily.

This is for your kind information.

Thanking you and assuring you the best of our Services at all the times

For Tejus Consultants
Director

TEJUS
CONSULTANTS

Name of the work: Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara.

Contractor/Agency : Sri. N Lokanath Reddy

Name of the Client : BBMP

Estimated Cost : 100.00Lakhs

Status of Bill : 1st and Part Bill

In the Presence of : (a)Mr Sundresh G K
Assistant Engineer, BBMP, Bangalore.
: (b)Mr Nandish K N
Assistant Executive Engineer, BBMP, Bangalore
: (c) Mr. Tejashwagowda Site Engineer
M/s Tejus Consultants

Item No	Description of Item of Work	Comments/observation
1	Earthwork in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications.	Work done up to the billed quantity and quality is satisfactory
2	Disposal of debries to the final place of disposal with all lead and lift and as direction by the engineer in charge of the work, lead 15 Km a) Basic rate for haulage of materials as per item No. 17.4/KSRRB : M000-4.1 ..... Rs. 2.00 Tonne/Km b) Average earth of work 1.28 Tonne/Km for Rs. 2.00/Km c) Add loading and unloading	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

No. 1, Ramana, 6th Cross, 1st Stage KHB Colony, Basaveshwaranagar, Bangalore - 560079. Ph: 9886276622, tejusconsultants@gmail.com

3	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
4	Providing and Filling in foundation with granite/trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
6	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
7	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
8	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
9	Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
10	Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
11	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregates @0.47cum, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in GF level for roof slabs, staircase, lintels, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone

	specifications.	TEJUS CONSULTANTS
12	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 24kgs, with 12mm and down size graded granite metal coarse aggregates @ 5175cum and fine aggregates @ 0.345cum, with superplastisiser @ 0.225lts, machine mixed, well compacted for plain chajja of 7.5 cms. average thickness, upto GF level, including cost of all materials, labour, HOM of machinery, finishing, curing, complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
13	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
14	Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
16	Providing and removing centering, shuttering, strutting, propping etc., for columns, pillars, piers, abutments, post and struts, square / rectangular / polygon in plan including cost of all materials, labour complete as per specification. Specification No. KBS 4.6.2 (P.16/I.4.32 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
17	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1 m in depth including cost of all materials, labour complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
18	Providing and removing centering height more than 3.5 mtrs, shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness upto 200 mm including cost of all materials, labour complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
19	Providing and removing centering, shuttering, strutting, propping etc., for edges of slabs and breaks in floor, cills, plinth including cost of all materials, labour complete as per specification.	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS CONSULTANTS

20	Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc., including edges including cost of all materials, labour complete as per specification.	Work done up to the billed quantity and quality is satisfactory
22	Providing and constructing load bearing with solid concrete blocks having block density not less than 1800 kg/cum having a minimum avarage compressive strength of 4.00 Newton /sqmm conforming to I.S: 2185 (part-1): 2005 and constructed with CM 1:4 as per 2572:2005 including cost of materials, labour charges, scaffolding, curing hire charges of machinery etc., complete as per specifications - do - with solid concrete blocks of size 400 x 150 x 200 mm	Work done up to the billed quantity and quality is satisfactory
23	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs, with 20mm and down size graded granite metalcoarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mexed, concrete laid I layers not exceeding 15 cms, thick, well compacted, in foundation, plinth and cills, including cost of all machinery, curing complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
32	Providing and fixing 12.5mm to 25 mm expanded metal work of 14 gauge with Mathi or Nandi wood patties of 50 mm x 12 mm size, including two coats approved paint etc., complete. (Including cost of screws).	Work done up to the billed quantity and quality is satisfactory
34	Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3mx2.8 m.	Work done up to the billed quantity and quality is satisfactory
35	Providing and fixing top covers made out of 20 guage M.S. sheet over pull and push rolling shutters bent to shape including cost of red lead primer coat of painting, materials, labour, HOM of machinery complete as per specifications.	Work done up to the billed quantity and quality is satisfactory
36	KSRB 15-3.5 : Providing 15mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (P.113/I.15.13 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

37	KSRB15-3-13: Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to ceiling including rounding off corners wherever required smooth rendering,: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications (P.114/I.15.21 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
38	KSRB15-7: Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications (P.115/I.15.33 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
39	KSRB 15-3.6 : Providing 15mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (P.113/I.15.14 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
40	Providing and fixing granite flooring in combination of 19mm thick (Avg) gang saw water cut LAKARED granite with 86% and with 14% of 19mm thick (avg.) Black granite in CM 1:4 proportion with a coat of rough plastering using CM 1:4, cut to required shape, pattern with paper joints, finished with cement mortar using white cement and colour pigments to match the colour of slab making through jointing with sealant, grooves in joints including cost of curing etc., complete including cost and conveyance of all materials, labour for all items of work, HOM of equipment etc., complete as per specification. (P.109/I.14.58 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
42	KSRB 14-17.2: Providing skirting, dado, rises of steps with colour glazed tiles on 10mm thick cement plaster 1:3 and jointed with white cement slurry over rough plaster surface (excluding cost of rough plastered surface which should be measured and paid separately) using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications.. Specification No. KBS 14.16, 14.17 Colour glazed tiles 30x60cms 6mm thick with border of size 30x10cms. (P.106/I.14.41.2 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
44	KSRB 15-15.1: Providing and applying painting in two coats with plastic emulsion paint with primer of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer (P.117/I.15.51.2 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory

TEJUS

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

45	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint with primer of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer (P.118/I.15.53.2 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
46	KSRB 15-1 8.1 : Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after throughly cleaning oil, grease, dirt and other foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications. (P.121/I.15.73 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
47	KSRB 15-18.2: Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. (P.121/I.15.74 PW, P & IWTD, SOUTH ZONE - SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
65	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over burdern upto 20 M. fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimu working of compressor for one hour (excluding cost of casing pipes, collars, cap etc.,) a)0.00 to 50.00 mtrs	Work done up to the billed quantity and quality is satisfactory
66	50.00 to 100.00 mtrs	Work done up to the billed quantity and quality is satisfactory
67	100.00 to 150.00 mtrs	Work done up to the billed quantity and quality is satisfactory
68	150.00 to 200.00 mtrs	Work done up to the billed quantity and quality is satisfactory
69	200.00 to 250.00 mtrs	Work done up to the billed quantity and quality is satisfactory
70	250.00 to 300.00 mtrs	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone

71	KSRB13-8 : Providing and fixing to wall, ceiling and floor,mediumdensity polyethylene pipes 6.00 kgs/sq.cm working pressure of outside diameter 160mm with special flange, compression type fittings, wall clips,making good the wall, ceiling and floor including cost of all materials, labour charges,andHOM testingcompleteasperspecifications.SpecificationNo.KBS 13.2.15.1 / 13.9 for internal water supply connection.(P.95 -96 / I .N 13.70.7 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
72	Supply of ISI Mark 175 mm nominal Bore, Plain end Steel casing Pipe - grade of Steel Fe 410 of wall thicjkness 5.4 mm thick confirming yo IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by basis open herth electric or basis oxygen process in random length of 5 to 7 mts. Both ends threaded confirming to IS 554/1985, one end fixed with socket confirming to IS 4270:2001 and the other end with screwed pipes. All pipes shall be reasonably free from defects. The tubes shall be reasonably 25.10kg/mtr. (Inclusive of all taxes and durties). Prices included Collar-medium duty (Material Component P.No.II/1.53)	Work done up to the billed quantity and quality is satisfactory
73	Supplying PVC Pipes 10kg/sqm 250mmdia PVC (casing pipe) (P.No .XXXV / Sl.no.892 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19))	Work done up to the billed quantity and quality is satisfactory
74	Providing 175mm dia Bore Cap & Clamp Set (P.No. XLVII / Sl.no.17 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
75	Providing 175mm dia M.S Collar (P.No.III/I.86) PHE S.R.2012-13	Work done up to the billed quantity and quality is satisfactory
76	Supply and delivery at sire brand new submersible PUMPSET suitable for borewell of 150mm dia and having declared duty conditions as detailed below and satisfying performance characteristic for pump and motor as declared by Bureau of Indian Standards. The pump should confirm to IS:8034-1976 (with all its latest amendments) and should bear the ISI certification mart IS 8034-1976. The pumpset should consist of bronze impellers. Discharge: 7500 Iph, Head: 102.88 mts, 15.00 HP30 Stage Atalanta, Suguna, CRI KIRLOSKAR and other equipment pump 15.00 HP / 11 KW (30 stages) (P.No. XLII / Sl.no.43 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
77	Submersible Cables: Supply and delevery brand New best make PVC insulated cable of flat 3 core (Sheathed) of nominal cross sectional area to IS: 694-1977 with latest amendments and ISI mark 1x3x6.00 Sq mm (P.No. XLVII / Sl.no.8 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone

No. 58, 3rd main, 6th Cross, 1st Stage KHB Colony BasaveshwaraNagar, Bangalore 560079, [illegible] tejusconsultants@gmail.com

78	Supply and delivery of Brand New gate Valve of 50mm dia size confirming to IS: 778-1984 with latest amendments with ISI mark (P.No. XLVII / Sl.no.15 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
79	Supply and delivery of Brand New best make non return valve of 50mm dia size confirming to IS: 10805-1986 with latest amendments with ISI mark (P.No. XLVII / Sl.no.16 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
80	Supply, Installation testing and commissioning of approved make heavytubes (Class 'C') confirming to as per IS1239 Part - I (25mm Nominalbore 4.05mm thick @ 2.97 Kg/m, 32mm Nominal bore 4.05mm thick@ 3.84 Kg/m,40mm Nominal bore 4.05mm thick @ 4.43 Kg/m,50mmNominal bore 4.47mm thick @ 6.17 Kg/m, 65mm Nominal bore 4.47mmthick @ 7.90 Kg/m, 80mm Nominal bore 4.85mm thick @ 10.10 Kg/m,100mm Nominal bore5.40mm thick @ 14.40 Kg/m,150mm Nominal bore5.40mm thick @ 21.20 Kg/m, Such as Tees elbows check nuts unions,Flanger, Nipples etc. including cutting welding, Trending fixing on walls,ceiling (Using 41-Tech pipe/M.S.angle supports work includes two coatsof metal primer and two coats of Red enamel paint etc.including cost ofmaterials, labour, HOM complete as per specifications. (P.371 / I .N 40.120.6 PW, P &IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
81	Meter and Panel Board: Supply and delivery of meter and panel board unit one number of MS box of size 300 x 120mm size fabricated out of 2mm thick sheet metal with sealable door arrangement for mounting the CTS(if any) cutouts 3 phase dia 4 wire energy meter and cable box complete. A transparent glass piece should be provided where the energy meter reading could be read. b. Panel Board (15HP) One number of cubicle type of control panel board to operate on 50c/400/400v (P.No. XLVII / Sl.no.12 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19	Work done up to the billed quantity and quality is satisfactory
82	Commissioning of work of pumpset including aligning and balancing with all necessary erection of material and labour including supply and erection of two pair of supporting clamps. One borewell cap, cable clips and water tight gland cable protectors, bolts nuts, valves and gauges etc., all job including fixing sluice valve, non return valve etc., and connecting deliver side of pumpset to rising main etc., complete	Work done up to the billed quantity and quality is satisfactory
83	Supplying & Fixing 50mm G.I. Union (P.No .XXXIX / PW, P & IWTD,SOUTH ZONE - SR 2016-17)	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

84	Supplying & Fixing 50mm Elbow (P.No .XXX I X / PW, P & IWTD,SOUTH ZONE - SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
85	Supplying & Fixing 50mm G I Nipple (P.No .XXX I X / PW, P & IWTD,SOUTH ZONE - SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
86	Supplying & Fixing 50mm Collar (P.No .XXX I X / PW, P & IWTD,SOUTH ZONE - SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
87	Fabricating supplying and mounting MS box made out... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete. (P 49/I.6.40 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
88	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.(32.9a) (P 49/I.6.39 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
89	Supplying of TPST with rewirableporcelain channels in SM enclosure. (P 44/I.6.5 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
90	Supply and fixing polished wood board made of not less than 15mmthick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc. (P 44/I.6.6 ELE SR 2014-15) .	Work done up to the billed quantity and quality is satisfactory
91	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 220v A.C. 50 Hz 12/24v D.C. (P 48/I.6.36 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
92	Supplying fully automatic star-delta starter unit push buttontypewith suitablewires,3contactors,oneadjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts 3 phase and wired after fixing to the existing wooden board for motor.(P 44/I.6.2 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone

93	Supplying and fixing single phase preve_nterusing necessary wires over an existing panel board suitable for motor up to 20 HP capacities. (P 44/I.6.3 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
94	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100v grade, multistrand Coppers with low conductorresistance single core cable in open or concealed system of wiring with specified IS 694: 1990 & confirmining to GTP of GROUP-A (P 44/I.2.5 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
95	Supplying,fixing and wiring heavy duty low voltage capacitors conforming to IS 2834. 3 phase, 400/440 volts grade, for power factor improvement of rotating machinery.Cost per KVAR (P 48/I.6.35 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
96	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF,energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898 (P 47/I.6.16 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
97	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit … The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia (P 55/I.7.1 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
98	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV. (P 62/I.7.12 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
99	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. (P 55/I.7.4 ELE SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
100	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. (P61 / I.7.8 ELE-SR 2014.15)	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

101	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) (P 61 / I.7.9 ELE-SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
102	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc. (P 62 / I.7.13 ELE-SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
103	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.(P 44 / I.6.7 ELE-SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
104	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the cement concrete road.. (P.269/ I .N 37.40 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19))	Work done up to the billed quantity and quality is satisfactory
105	KSRB 2-2.2: Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1 (b) / 2.3.5 (P.6/I.2.4 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
106	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) - 50mm nominal OD pipes (P.98/ I .N 13.85.6 PW, PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
107	KSRB 2-4: Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. (P.7/ I 2.11 PW,P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
108	KSRB 4-1.6 : Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878cum and fine aggregates @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (P.13/I.4.6 PW, P &	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone

	IWTD,BENGALURU CIRCLE - SR 2018-19)	TEJUS CONSULTANTS
109	KSRB 13-7.1-5 : Providing and fixing in position 65mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.10 / 13.13(P.No 95 / Sl.No.13.56 PW, P & IWTD,BENGALURU CIRCLE - SR 2018-19)	Work done up to the billed quantity and quality is satisfactory
110	Providing Reverse Osmosis System to cover 2000 liters of High TDS TECHNICAL Specifications, Feed Water : 5000LPH, Treated Water : 3000LPH, Reject Water : 2000LPH, RAW WATER PUMP, Purpose :- To feed the Dual Media Filter at pressure more than 2.0 bars, which is min. operating pressure for filter ? , SAND MEDIA FILTER, Purpose :- to remove the total suspended solids, dirt,iron and reduce silt density index which can foul the members. ACTIVATED CARBON FILTER, Purpose:- To remove the total color, smell, odor, from the water. MICRON FILTER, Purpose:- To remove the fine particles up to 05 microns and reduce silt density levels to acceptable level. HIGH PRESSURE PUMP, Purpose:- To feed the reversw Osmosis Membrane at pressure more than the osmotic pressure taking into cosideration flux rate,flow and recovery, RO MEMBRANES, Purpose:- To remove the major part of TDS into 98% by Reverse Osmosis Membranes arranged and designed to give adequate flow and recovery. RO CLEANSING SYSTEM. ELECTRICAL PANEL, Purpose:- A Control panel is provided as a safety measure for the pumps & other electrical items Specifications, INSTRUMENTATION, Purpose:- A) Flow Meter: To measure the online flow of water flowtec b) Low pressure switch : To protect RO Pump from dry running c) High pressure switch: to protect RO pump from back pressure d) Pressure Gauges: For claculate AP for each unit in RO system. PH DOSING SYSTEM, Purpose TO DOSE SODIUM Bi-cabonate for enhances product water SS till the prefiltration & SS from HPP to the permeate line termination point NRV's Pressure relief valves, whereever needed the system will be on common SS base frame Supply & manufacture of complete REverse Osmosis plant stainless steel tank (2kl) Raw water tank (5kl) with stainless steel pipe line required for plant erection.	Work done up to the billed quantity and quality is satisfactory
111	Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using copper PVC insulated multi strand 2x1.5 Sq mm copper wire with a 6 Amps flush type SP control switch shall be fixed on the existing plastic sheet gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet.Short point-up to 3 Mtrs from	Work done up to the billed quantity and quality is satisfactory

Asst. Executive Engineer
Project Division
Yelahanka Zone

	tapping point to out let via switch.	TEJUS CONSULTANTS
112	Medium point above 3 Mtrs up to 6 Mtrs from tapping point to out let via switch	Work done up to the billed quantity and quality is satisfactory
113	Long point above 6 Mtrs up to 10 Mtrs from tapping point to out let via switch	Work done up to the billed quantity and quality is satisfactory
114	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal / PVC box.(P.16/I.3.6.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
115	Supplying 6A flush/projected type socket and 6 amps flush/projected type SP switch either surface/flush mounting in a existing gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. 6 Amps 2 Way (P.15/I.3.1.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
116	Supplying and flush mounting powder coated metal box suitable for mounting modular switch plates. The box should be firmly flush mounted after due groove cutting in Brick/Stone/C.C wall (P.16/I.3.5.6 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
118	Supplying heavy gauge PVC conduit pipe 20mm dia confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.(P.2/I.1.1.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
119	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit…… The pit should be filled with equal proportion of salt and charcoal 150 mm alround the pipe to complete depth. The connection from the pipe to the conduit etc, is to be established through GI wire of size as per IS1 specification 7.33 of IS 732 using 12 mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 122 mm dia.(P.55/I.7.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

120	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers etc., complete. 32 AMPS (P.45/I.6.7.2 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
121	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF,energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required. (P.47/I.6.16.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
122	Supply and fixing of bakelite D.P/Socket/switch with/without neon indicator over existing wood board or flush mounting in plastic plates/nitches. 16 Amps Combined switch and socket with indication (P.15/I.3.3.4PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
123	Supplying and fixing PBBC brass/Bakelite straight or slant batten holder and wiring, within 60W/230 Volts lamps. (P.20/I.4.2 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
124	Wiring for lighting / power circute using one of PVC insulated 1100v/grade multies and copper conductor single core cable in open or consealed system of wiring A Group materials 4.00 Sqmm materials P.6/I.2.5.4 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
125	Wiring for lighting / power circute using one of PVC insulated 1100v/grade multies and copper conductor single core cable in open or consealed system of wiring A Group materials 2.50 Sqmm materials (P.6/I.2.5.3 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
126	Fixing one exhaust fan after making a suitable nitch in the wall and finishing with cement mortar and colouring to match the existing wall or brackets, with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame. (P.109/I.17.11 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
127	Supplying exhaust fan of 1440 RPM of 300mm (12") size with bracket blades complete for light duty suitable to operate on 230V 50Hz, AC Supply. (P.78/I.9.1 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

128	Supply of 2'x2' LED recessed luminaire with ...Watts system wattage. Housing shall be with pressure die cast aluminum alloy with corrosion proof resistant polyester power coated. Driver operates with voltage range from 100V to 270V 50/60 Hz with short circuit, overload & mis-wiring protection. Lumen Maintenance of 70% at 50000 Hrs. Injection moulded poly carbonate diffuser for better mechanical stability, light transmission & avoid pot hole effect. Junction temperature shall be < 70 degree Celsius. Driver is on constant current driver @ 0.06A with PF > 0.92 with line voltage @ 220-240V @ 50/60Hz, driver efficiency > 85% & THD<15%. LED Efficiency > 130 lm/W at 1W & Fixture Efficiency >75lm/w with CRI > 75 with injection moulded Polycarbonate lens with < 80mm depth. 5 years Warranty against any manufacturing defect working under standard electrical condition.GF - LED modular down light 1'x1'-36 watts	Work done up to the billed quantity and quality is satisfactory
129	LED modular down light 2'x2'-55 watts	Work done up to the billed quantity and quality is satisfactory
130	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws. 12"x12"x2"	Work done up to the billed quantity and quality is satisfactory
133	Supplying and fixing PVC/metal conduit Deep junction box (P.2/I.1.5 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
134	Extra for Groove cutting in brick wall/CC floor to the suitable depth for concealing of Conduit/GI pipe and plastering, finishing upto wall surface complete. (P.3/I.1.7 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
135	Supplying and fixing regular MCCB distribution Panel confirming to IS 8828, on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing of suitable type capacity MCCB's as an incomer for 3 phase Double door with necessary bus bar completely wired to use on 440Volts 3phase 4 wire powder coated painting etc., complete with a provision for fixing of single/three phase suitable capacity MCCB/MCB's as outgoings confirming to IS8828. (P.46/I.6.2 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
136	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) (P.61/I.7.9 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

137	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV. (P.62/I.7.12 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
138	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. (P.55/I.7.4 PWD,ELE -SR 2014-15)	Work done up to the billed quantity and quality is satisfactory
141	Supplying and Installing 1.00HP / 75 KW 10Stage Submersible Single Phase Motor (P.XXXXIV / I.1 PW, P & IWTD, SOUTH ZONE -SR 2016-17)	Work done up to the billed quantity and quality is satisfactory
142	Meter and Panel Board: Supply and delivery of meter and panel board unit one number of MS box of size 300 x 120mm size fabricated out of 2mm thick sheet metal with sealable door arrangement for mounting the CTS(if any) cutouts 3 phase dia 4 wire energy meter and cable box complete. A transparent glass piece should be provided where the energy meter reading could be read. b. Panel Board (1.00HP) One number of cubicle type of control panel board to operate on 50c/400/400v	Work done up to the billed quantity and quality is satisfactory

TEJUS CONSULTANTS

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore